

(FILE 'HOME' ENTERED AT 14:50:25 ON 15 SEP 2000)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 14:50:41 ON 15 SEP 2000

L1 211053 S HIV
L2 297235 S GLYCOPROTEIN#
L3 15041 S GP120 OR GP160
L4 713277 S MODIFY OR MODIFIED, OR MODIFYING
L5 47817 S MUTATE OR MUTATED OR MUTATING
L6 467248 S PLASMID# OR VECTOR#
L7 36180 S ANTIGEN PRESENTING CELL# OR APC#
L8 93280 S L7 OR DENDRITIC
L9 18044 S L1 AND (L2 OR L3)
L10 11774 S VARIABLE LOOP OR V3
L11 759169 S L4 OR L5
L12 708 S L11 AND L9
L13 149 S L12 AND L10
L14 14 S L13 AND L6
L15 8 DUP REM L14 (6 DUPLICATES REMOVED)
L16 350 S L11 (P)L10
L17 21 S L16 AND L6
L18 13 DUP REM L17 (8 DUPLICATES REMOVED)
L19 12 S L17 NOT L14
L20 13 DUP REM L18 (0 DUPLICATES REMOVED)
L21 77 S L11 (10A)L10
L22 5 S L21 AND L6
L23 3 DUP REM L22 (2 DUPLICATES REMOVED)
E YUTARO KANEKO/AU
E YUTARO, KANEKO/AU
E KANEKO, YUTARO/AU
E KANEKO YUTARO/AU
L24 124 S E3-E4
E KANEKO Y/AU
L25 1960 S E3-E7
L26 2084 S L24 OR L25
L27 54 S L26 AND L2
L28 3 S L27 AND L10
L29 43997 S DELETE OR DELETED OR DELETING
L30 112 S L10 (P)L29
L31 19 S L30 AND L6
L32 11 DUP REM L31 (8 DUPLICATES REMOVED)

L4 ANSWER 17 OF 17 MEDLINE

AB The apathogenic Newcastle disease virus (NDV) strain Ulster has been used successfully as an adjuvant component for active specific immunotherapy of malignant mouse lymphoma, and in nude mice it was shown to be able to lead to retardation of the s.c. growth of xenotransplanted human melanoma cells. In order to improve in vivo effectiveness of virotherapy of human tumors without significantly increasing the risk of unspecific viral replication in host cells, we adapted the virus for growth in a human melanoma line (MeWo M). For this purpose NDV Ulster was mutagenized and a variant was selected which could replicate and reinfect the tumor line. The mutant (NDV 1E 10) performed late lysis on the melanoma line. Replication was found to be at least 100 times more efficient in MeWo M than in 6 of 8 other human tumor cell lines of different tissue origin. In 10 of 11 murine cell lines, NDV 1E 10 did not replicate via multicycles. Chick embryonic fibroblasts were permissive

for

nonlytic replication. Neither the virulent wild-type NDV Italian nor the avirulent strain NDV Ulster shared these specific replication properties with the new variant. We also established MeWo melanoma sublines with different metastatic capacities and tested them as targets for NDV 1E 10 infection. The MeWo subpopulations exhibited comparatively small differences in permissivity for multicyclic replication, but the more metastatic MeWo Met, like allogeneic melanoma lines, was more resistant

to

lysis. NDV Italian, in contrast, showed no differences in replication and lysis on any of the tested melanoma lines. Trypsin-activation experiments suggested an incomplete cleavage of mutant envelope glycoprotein F by the permissive cell line and, thus, mechanisms of specific infection and replication not requiring fully activated envelope glycoproteins.

CT Check Tags: Animal; Human

*Melanoma: MI, microbiology

Mice

Mutation

Neoplasm Metastasis

*Newcastle Disease Virus: IP, isolation & purification

Newcastle Disease Virus: PH, physiology

Peptide Hydrolases: PD, pharmacology

T-Lymphocytes: IM, immunology

Tumor Cells, Cultured

Viral Fusion Proteins: AN, analysis

*Virus Replication

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(FILE 'HOME' ENTERED AT 13:55:01 ON 06 OCT 2000)

FILE 'BIOSIS, MEDLINE' ENTERED AT 13:55:17 ON 06 OCT 2000

L1 278 S ENVELOPE AND GLYCOPROTEIN# AND ADJUVANT#

L2 30 S L1 AND (MUTAT? OR MODIF? OR DELET? OR INSERT?)

L3 22 DUP REM L2 (8 DUPLICATES REMOVED)

L4 17 S L3 NOT PY>1998